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What is claimed is:

1. A computer-implemented method for use in a printer, the method comprising steps of:

(A) receiving a representation of a subset of an image printed by the printer;

5 (B) identifying a first pattern in the subset of the image, the first pattern encoding a position of the subset along an axis of the image;

(C) identifying the position of the subset
10 along the axis of the image based on the first pattern; and

(D) estimating a color misregistration along the axis of the image based on the position of the subset along the axis of
15 the image.

2. The method of claim 1, wherein the step (D) comprises steps of:

(D)(1) identifying an expected distance between a first shape having a first color and a
5 second shape having a second color in the subset of the image based on the position of the subset along the axis of the image;

(D)(2) estimating an actual distance between the
10 first and second shapes based on the representation of the subset of the image; and

(D)(3)   estimating the color misregistration
             along the axis of the image as the
15   difference between the expected distance
             and the estimate of the actual distance
             between the first and second shapes.

3. The method of claim 1, wherein the printer is a
tandem printer and wherein the axis of the image runs in
a cross-web direction of the image.

4. The method of claim 1, wherein the first pattern
comprises a subset of a second pattern having a
plurality of zones containing a plurality of unique sub-
patterns, and wherein step (C) comprises steps of:

5   (C)(1)   identifying one of the plurality of
                          unique sub-patterns in the first
                          pattern; and

             (C)(2)   identifying the position of the
                          subset along the axis of the image
10   based on the sub-pattern identified
                          in step (C)(1).

5. The method of claim 4, wherein the second
pattern comprises a plurality of lines running parallel
to a second axis of the image and a plurality of shapes
abutting the plurality of lines, and wherein the step
5   (C)(1) comprises a step of identifying one of the
plurality of unique sub-patterns in the first pattern by
matching a pattern of abutting shapes in the subset of
the image to a pattern of abutting shapes in the first
pattern.

6. The method of claim 1, wherein the printer
comprises a first print head for printing at a first

resolution and a second print head for printing at a
second resolution that differs from the first
5 resolution, wherein the second pattern comprises a
plurality of shapes printed by the first and second
print heads, and wherein each of the plurality of shapes
is printed solely by a single one of the first and
second print heads.

7. A computer-implemented method for use in a
tandem printer comprising a first print head for
printing at a first resolution and a second print head
for printing at a second resolution that differs from
5 the first resolution, the method comprising steps of:

    (A)   receiving a representation of a subset of
                an image printed by the printer;

    (B)   identifying a first pattern in the subset
                of the image, the first pattern encoding a
10   position of the subset along an axis of
                the image, the axis running in a cross-web
                direction of the image, the first pattern
                comprising a subset of a second pattern
                having a plurality of zones containing a
15   plurality of unique sub-patterns;

    (C)   identifying the position of the subset
                along the axis of the image based on the
                first pattern by performing steps of:

      (1)   identifying one of the plurality of
20   unique sub-patterns in the first pattern; and

      (2)   identifying the position of the subset
           along the axis of the image based on the
           identified sub-pattern;

(D)   estimating a color misregistration along
25   the axis of the image based on the
            position of the subset along the axis of
            the image by performing steps of:
    (1)   identifying an expected distance between
        a first shape having a first color and a
30   second shape having a second color in the
        subset of the image based on the position of
        the subset along the axis of the image;
    (2)   estimating an actual distance between the
        first and second shapes based on the
35   representation of the subset of the image; and
    (3)   estimating the color misregistration
        along the axis of the image as the difference
        between the expected distance and the estimate
        of the actual distance between the first and
40   second shapes.

    8. The method of claim 7, wherein the second
pattern comprises a plurality of lines running parallel
to a second axis of the image and a plurality of shapes
abutting the plurality of lines, and wherein the step
5 (C)(1) comprises a step of identifying one of the
plurality of unique sub-patterns in the first pattern by
matching a pattern of abutting shapes in the subset of
the image to a pattern of abutting shapes in the first
pattern.

    9. A printer comprising:

    means for receiving a representation of a subset of
an image printed by the printer;

first identification means for identifying a first pattern in the subset of the image, the first pattern encoding a position of the subset along an axis of the image;

second identification means for identifying the position of the subset along the axis of the image based on the first pattern; and

means for estimating a color misregistration along the axis of the image based on the position of the subset along the axis of the image.

10. The printer of claim 9, wherein the means for estimating comprises:

means for identifying an expected distance between a first shape having a first color and a second shape having a second color in the subset of the image based on the position of the subset along the axis of the image;

means for estimating an actual distance between the first and second shapes based on the representation of the subset of the image; and

means for estimating the color misregistration along the axis of the image as the difference between the expected distance and the estimate of the actual distance between the first and second shapes.

11. The printer of claim 9, wherein the first pattern comprises a subset of a second pattern having a plurality of zones containing a plurality of unique sub-patterns, and wherein the second identification means comprises:

means for identifying one of the plurality of
unique sub-patterns in the first pattern; and

means for identifying the position of the subset
along the axis of the image based on the sub-pattern
10   identified in step (C)(1).

12. The printer of claim 11, wherein the second
pattern comprises a plurality of lines running parallel
to a second axis of the image and a plurality of shapes
abutting the plurality of lines, and wherein the second
5   identification means further comprises means for
identifying one of the plurality of unique sub-patterns
in the first pattern by matching a pattern of abutting
shapes in the subset of the image to a pattern of
abutting shapes in the first pattern.

13. The printer of claim 9, wherein the printer
comprises a first print head for printing at a first
resolution and a second print head for printing at a
second resolution that differs from the first
5   resolution, wherein the second pattern comprises a
plurality of shapes printed by the first and second
print heads, and wherein each of the plurality of shapes
is printed solely by a single one of the first and
second print heads.

14. A data structure tangibly embodied in a
computer readable-medium and suitable for printing as a
calibration image for use in performing color
registration correction in a multi-color printer, the
5   data structure representing an image having a first
axis, the image comprising a plurality of regions
positioned along the first axis, the plurality of

regions comprising a plurality of patterns, each pattern
P in the plurality of patterns encoding the position of
10   pattern P along the first axis.

15. The data structure of claim 14, wherein the
plurality of patterns comprises:

a plurality of lines positioned along the first
axis and running parallel to a second axis of the image;
5   and

a plurality of shapes abutting the plurality of
lines.

16. The data structure of claim 15, wherein the
printer comprises a plurality of print heads, wherein
the plurality of lines have a plurality of colors, and
wherein each of the plurality of lines has a single
5   color suitable for printing by a single print head in
the printer.

17. The data structure of claim 16, wherein the
plurality of lines includes at least one line of each of
the colors printable by a single one of the plurality of
print heads.

18. The data structure of claim 15, wherein each of
the plurality of lines is exactly one pixel wide, and
wherein each of the plurality of abutting shapes is
exactly one pixel wide.

19. A data structure tangibly embodied in a
computer readable-medium and suitable for printing as a
calibration image for use in performing color
registration correction in a multi-color printer
5   comprising a plurality of print heads, the data
structure representing an image having a first axis, the

image comprising a plurality of regions positioned along
the first axis, the plurality of regions comprising a
plurality of patterns, each pattern P in the plurality
10   of patterns encoding the position of pattern P along the
first axis, the plurality of patterns comprising: (1) a
plurality of lines positioned along the first axis and
running parallel to a second axis of the image; and (2)
a plurality of shapes abutting the plurality of lines,
15   wherein the plurality of lines have a plurality of
colors, and wherein each of the plurality of lines has a
single color suitable for printing by a single print
head in the printer.

20. A computer-implemented method for use in a
printer comprising a first print head for printing at a
first resolution and a second print head for printing at
a second resolution that differs from the first
5   resolution, the method comprising steps of:

(A)   receiving a representation of a subset of
            an image printed by the printer;

(B)   identifying, in the subset of the image, a
            first shape printed by the first print
10   head;

(C)   identifying, in the subset of the image, a
            second shape printed by the second print
            head;

(D)   estimating locations of the first and
15   second shapes along the first axis of the
            image based on the representation of the
            subset of the image; and

(E)   estimating a color misregistration along the first axis of the image as the
20   difference between the location of the first shape and the location of the second shape along the first axis of the image.

21. The method of claim 20, wherein the printer is a tandem printer and wherein the first axis runs in a down-web direction of the image.

22. The method of claim 20, wherein the step (D) comprises steps of:

(D)(1)   identifying a center of the first shape along the first axis;

5   (D)(2)   identifying a center of the second shape along the first axis;

(D)(3)   estimating the location of the first shape as the identified center of the first shape; and

10   (D)(4)   estimating the location of the second shape as the identified center of the second shape.

23. The method of claim 20, wherein the first shape consists of a first pixel printed by the first print head and wherein the second shape consists of a second pixel printed by the second print head.

24. A computer-implemented method for use in a tandem printer comprising a first print head for printing at a first resolution and a second print head for printing at a second resolution that differs from
5   the first resolution, the method comprising steps of:

(A) receiving a representation of a subset of
an image printed by the printer;

(B) identifying, in the subset of the image, a
first shape printed by the first print

10 head;

(C) identifying, in the subset of the image, a
second shape printed by the second print
head;

(D) estimating locations of the first and

15 second shapes along a first axis of the
image based on the representation of the
subset of the image, the first axis
running in a down-web direction of the
printer, by performing steps of:

20 (1) identifying a center of the first shape
along the first axis;

(2) identifying a center of the second shape
along the first axis;

(3) estimating the location of the first shape

25 as the identified center of the first
shape; and

(4) estimating the location of the second
shape as the identified center of the
second shape.

30 (E) estimating a color misregistration along
the first axis of the image as the
difference between the location of the
first shape and the location of the second
shape along the first axis of the image.

25. A printer comprising:

a first print head for printing at a first resolution;

a second print head for printing at a second resolution that differs from the first resolution;

means for receiving a representation of a subset of an image printed by the printer;

first identification means for identifying, in the subset of the image, a first shape printed by the first print head;

second identification means for identifying, in the subset of the image, a second shape printed by the second print head;

means for estimating locations of the first and second shapes along the first axis of the image based on the representation of the subset of the image; and

means for estimating a color misregistration along the first axis of the image as the difference between the location of the first shape and the location of the second shape along the first axis of the image.

26. The printer of claim 25, wherein the printer comprises a tandem printer and wherein the first axis runs in a down-web direction of the image.

27. The printer of claim 25, wherein the first identification means comprises:

means for identifying a center of the first shape along the first axis;

means for identifying a center of the second shape along the first axis;

means for estimating the location of the first

shape as the identified center of the first shape; and

means for estimating the location of the second

10   shape as the identified center of the second shape.

28. A computer-implemented method for use in a

printer, the method comprising steps of:

(A)   receiving a representation of a subset of

an image printed by the printer, the

5   subset of the image comprising a first

plurality of shapes printed by the first

and second print heads;

(B)   identifying a position of the subset along

a first axis of the image;

10   (C)   identifying an expected distance between a

first one of the first plurality of shapes

printed by the first print head and a

second one of the first plurality of

shapes printed by the second print head

15   based on the position of the subset along

the first axis of the image;

(D)   estimating an actual distance between the

first and second shapes based on the

representation of the subset of the image;

20   (E)   estimating a first color misregistration

along the first axis as the difference

between the expected distance and the

estimated actual distance between the

first and second shapes;

25   (F)   identifying, in the subset of the image, a third shape printed by the first print head;

     (G)   identifying, in the subset of the image, a fourth shape printed by the second print

30   head;

     (H)   estimating locations of the third and fourth shapes along a second axis of the subset of the image based on the representation of the subset of the image;

35   and

     (I)   estimating a second color misregistration along the second axis as the difference between the location of the third shape and the location of the fourth shape along

40   the second axis of the image.

29. The method of claim 28, further comprising a step of:

     (J)   prior to the step (A), printing the image.

30. The method of claim 28, further comprising steps of:

     (J)   generating a first misregistration correction based on the first color

5   misregistration;

     (K)   generating a second misregistration correction based on the second color misregistration; and

     (L)   applying the first and second

10   misregistration corrections to a subsequent image printed by the printer.

31. A printer comprising:

means for receiving a representation of a subset of an image printed by the printer, the subset of the image comprising a first plurality of shapes printed by the first and second print heads;

means for identifying a position of the subset along a first axis of the image;

means for identifying an expected distance between a first one of the first plurality of shapes printed by the first print head and a second one of the first plurality of shapes printed by the second print head based on the position of the subset along the first axis of the image;

means for estimating an actual distance between the first and second shapes based on the representation of the subset of the image;

means for estimating a first color misregistration along the first axis as the difference between the expected distance and the estimated actual distance between the first and second shapes;

means for identifying, in the subset of the image, a third shape printed by the first print head;

means for identifying, in the subset of the image, a fourth shape printed by the second print head;

means for estimating locations of the third and fourth shapes along a second axis of the subset of the image based on the representation of the subset of the image; and

means for estimating a second color misregistration along the second axis as the difference between the

location of the third shape and the location of the
fourth shape along the second axis of the image.

32. The printer of claim 28, further comprising:

means for generating a first misregistration
correction based on the first color misregistration;

means for generating a second misregistration
correction based on the second color misregistration;
and

means for applying the first and second
misregistration corrections to a subsequent image
printed by the printer.